Remediation Treatment of Sustained Casing Pressures (SCP) In Wells with Top Down Surface Injection of Fluids and Additives

Abstract

A method of injection of a higher density fluid into the top of the annulus of a well while lower density fluid is withdrawn from the top of the annulus of the well, wherein the higher density fluid has a composition such that it will drop through the lower density fluid without dispersing therein, thus flowing into the deeper reaches of the annulus and not short circuiting through the top of the annulus to the point from which the lower density fluid is intended to be withdrawn. A method of injection of a higher density fluid into the top of the annulus of a well without simultaneously withdrawing a lower density fluid from the top of the annulus of the well, wherein the higher density fluid has a composition such that it will drop through the lower density fluid without dispersing therein, thus flowing into the deeper reaches of the annulus so that when the pressure induced in the annulus as a result of this

injection is subsequently bled off, principally the lower density fluid will be that which is withdrawn.